Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

UNITED STATES DEPARTMENT OF AGRICULTURE,

Department Circular 121.

Bureau of Plant Industry,

(New and Rare Seed Distribution).

WM. A. TAYLOR, Chief.

VELVET BEANS.

OBJECT OF THE DISTRIBUTION.—The distribution of new and rare seeds has for its object the dissemination of new and rare crops, improved strains of staple crops, and high-grade seed of crops new to sections where the data of the department indicate such crops to be of considerable promise. Each package contains a sufficient quantity for a preliminary trial, and where it is at all practicable the recipient is urged to use the seed for the production of stocks for future plantings. It is believed that if this practice is followed consistently it will result in a material improvement in the crops of the country. Please make a full report on the inclosed blank regarding the results you obtain with the seed.

DESCRIPTION.

Velvet beans are rampant-growing leguminous annuals, making vines 20 to 75 feet in length, according to variety and conditions. They grow well on soils too light and sandy for most other legumes and produce an immense yield of forage, which is excellent feed for cattle and hogs. They also make a very good hay if cut soon after the first flowers appear, but the vines are so long and tangled that harvesting is difficult. Velvet beans are excellent for newly cleared lands, as the growth is so rapid and dense that it smothers out the grass and brings the soil into a cultivable condition better than any other crop. They also have great value for green manuring and as a restorative for soils needing nitrogen and humus. Like other legumes, velvet beans draw nitrogen from the air, the proportion of nitrogen contained in the plants being about the same as in cowpeas, and as the total yield is much greater the total amount of nitrogen and humus added to the soil is correspondingly larger. A crop of 3 tons contains as much nitrogen as a ton of cottonseed meal, while the amount of humus will be three times as great.

PLANTING.

Planting should not be done too early, but at about the same time as cotton, as the beans do not make a thrifty growth until the soil has become well warmed. One bushel of seed will plant 3 to 6 acres, according to variety and conditions. The vines should be given some sort of support to keep them up from the ground; otherwise, they will not fruit heavily or make the most vigorous growth. Poles may

be used for the purpose, but are troublesome and expensive. Cornstalks are more commonly used. Some strong-growing variety, like the Mexican June corn, will give all the needed support. The corn should be planted early and when about 2 feet high the beans are planted between the hills. After planting, the crop should be cultivated until the vines shade the ground. The vines make such a heavy growth that little corn can be gathered from the field, but when grazed little of the corn or beans will be lost. The only expense for growing the corn is the planting, and that will be more than repaid in the increased yield of the beans.

FEEDING VALUE.

The principal value of the velvet bean is for winter grazing, and for that purpose it is one of the best crops which can be grown on the light soils and in the long season of the immediate Gulf coast. It is usual to allow the crop to grow until killed by frost, after which it is grazed through the winter, as the vines and leaves decay so slowly that they retain their palatability a long time. The matured beans are quite hard when dry, but are eaten well in the fall, or whenever they become slightly softened either by rains or by lying on damp soil. The yield of seed from a fair growth of vines is usually from 20 to 30 bushels per acre, and much heavier yields are often secured. One hundred pounds of the pods will shell about 60 pounds, or 1 bushel of seed. They do not need to be shelled for feeding cattle, and make an excellent grain feed for winter use. Experiments made at the Agricultural Experiment Station of Florida indicate that for feeding 3 pounds of the beans in the pods are worth more than 1 pound of cottonseed meal.

VARIETIES.

Florida velvet bean.—The Florida velvet bean is the best known and oldest cultivated variety. A late, vigorous grower, seldom maturing pods north of Atlanta. Flowers purple, pods black-hairy, 2 to 2½ inches long. Seeds nearly round, gray and brown marbled. One bushel will plant 4 to 6 acres. Plant about 5 feet apart.

Lyon velvet bean.—In growth and date of maturing much like the Florida velvet bean. Flowers white, pods 4 to 6 inches long, nearly smooth. Seeds large, flattened, white; yield 25 to 40 bushels per acre. One bushel will seed about 4 acres. Plant about 5 feet apart.

Chinese velvet bean.—Just like the Lyon bean, but about six weeks earlier. Vines not so large. Yield of beans very heavy. One bushel will seed 4 acres. Plant about 4 feet apart. This is the best early velvet bean known. Will mature in Tennessee and North Carolina.

Yokohama velvet bean.—The earliest variety, maturing as far north as Washington, D. C., ripening in about 100 days. Pods 4 to

6 inches long, with close gray hairs. Seeds large, flattened, gray. Yield of seed often 35 to 50 bushels an acre. One bushel will plant 3 acres. Plant about 3 feet apart.

Early Florida velvet bean.—The Early Florida velvet bean, or Hundred-Day Florida velvet bean, as it is sometimes called, is very similar to the original Florida velvet bean, except that it makes a much smaller vine and is much less prolific; but as it matures in about four months from planting it can be grown profitably as far north as Tennessee.

Alabama and Georgia velvet beans.—Two somewhat different strains of the early Florida velvet beans are now distinguished as the Alabama velvet bean and the Georgia velvet bean, the latter a little the earlier. The Alabama variety is very extensively grown. Both varieties are confused under such names as Early Florida, Early Speckled, and Hundred-Day velvet bean.

Osceola velvet bean.—A hybrid between the Lyon and Florida varieties that ripens much earlier than either. The pods are dark velvety, but strongly ridged on the sides. A vigorous, prolific variety, ripening in 150 to 160 days. Seeds large, mottled brown and white. Plant 4 to 5 feet apart. A popular, extensively grown variety.

JUNE 8, 1920.

WASHINGTON : GOVERNMENT PRINTING OFFICE : 1920